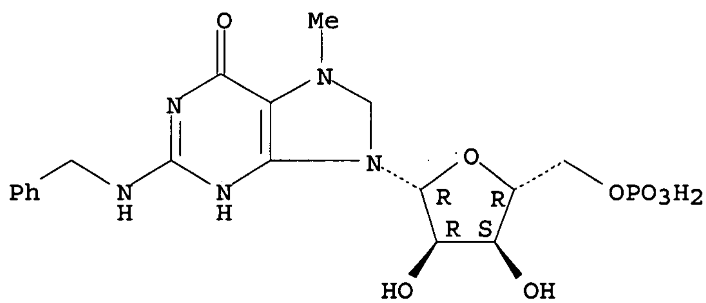
nucleosides or nucleotides, but 8-substituents appear to bring about a moderate steric acceleration.

IT 130538-37-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(depurination of, pH independent)

RN 130538-37-3 CAPLUS

CN 5'-Guanylic acid, 7-methyl-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

=> d his

(FILE 'HOME' ENTERED AT 16:51:16 ON 13 MAY 2007)

FILE 'REGISTRY' ENTERED AT 16:51:32 ON 13 MAY 2007

L1		STRUCTURE UPLOADED
L2	0	S L1 SSS SAM
L3	19	S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:53:36 ON 13 MAY 2007

L4	2	S L3

=> d his

(FILE 'HOME' ENTERED AT 16:51:16 ON 13 MAY 2007)

FILE 'REGISTRY' ENTERED AT 16:51:32 ON 13 MAY 2007

L1		STRUCTURE UPLOADED
L2	0	S L1 SSS SAM
L3	19	S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:53:36 ON 13 MAY 2007

L4	2	S L3

=> d his

(FILE 'HOME' ENTERED AT 16:51:16 ON 13 MAY 2007)

FILE 'REGISTRY' ENTERED AT 16:51:32 ON 13 MAY 2007

L1		STRUCTURE UPLOADED
L2	0	S L1 SSS SAM
L3	19	S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:53:36 ON 13 MAY 2007

L4	2	S L3

To be Scanned

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptau183lec

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 3	JAN 16	CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 4	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS 5	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 6	JAN 22	CA/CAplus updated with revised CAS roles
NEWS 7	JAN 22	CA/CAplus enhanced with patent applications from India
NEWS 8	JAN 29	PHAR reloaded with new search and display fields
NEWS 9	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 10	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS 11	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS 12	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS 13	FEB 26	MEDLINE reloaded with enhancements
NEWS 14	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS 15	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS 16	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 17	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS 18	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 19	MAR 16	CASREACT coverage extended
NEWS 20	MAR 20	MARPAT now updated daily
NEWS 21	MAR 22	LWPI reloaded
NEWS 22	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS 23	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS 24	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS 25	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS 26	APR 30	CA/CAplus enhanced with 1870-1889 U.S. patent records
NEWS 27	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS 28	MAY 01	New CAS web site launched
NEWS 29	MAY 08	CA/CAplus Indian patent publication number format defined

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

```
* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:51:16 ON 13 MAY 2007

=> ile regf
ILE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 16:51:32 ON 13 MAY 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   11 MAY 2007  HIGHEST RN 934660-65-8
DICTIONARY FILE UPDATES:  11 MAY 2007  HIGHEST RN 934660-65-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading c:\program files\stnexp\queries\10.533071.R1.Furiosi et al..STR

L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l1 sss sam
SAMPLE SEARCH INITIATED 16:52:10 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       58 TO ITERATE

100.0% PROCESSED       58 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
```

```
PROJECTED ITERATIONS:          704 TO     1616
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 16:52:16 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     1001 TO ITERATE

100.0% PROCESSED     1001 ITERATIONS                                19 ANSWERS
SEARCH TIME: 00.00.01

L3           19 SEA SSS FUL L1

=> d scanb
'SCANB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats.  The predefined substance formats
are:  (RN = CAS Registry Number)

REG    - RN
SAM    - Index Name, MF, and structure - no RN
FIDE   - All substance data, except sequence data
IDE    - FIDE, but only 50 names
SQIDE  - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD    - Protein sequence data, includes RN
SQD3   - Same as SQD, but 3-letter amino acid codes are used
SQN    - Protein sequence name information, includes RN

CALC   - Table of calculated properties
EPROP  - Table of experimental properties
PROP   - EPROP and CALC

Any CA File format may be combined with any substance format to
obtain CA references citing the substance.  The substance formats
must be cited first.  The CA File predefined formats are:

ABS  -- Abstract
APPS -- Application and Priority Information
BIB  -- CA Accession Number, plus Bibliographic Data
CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
```

The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.

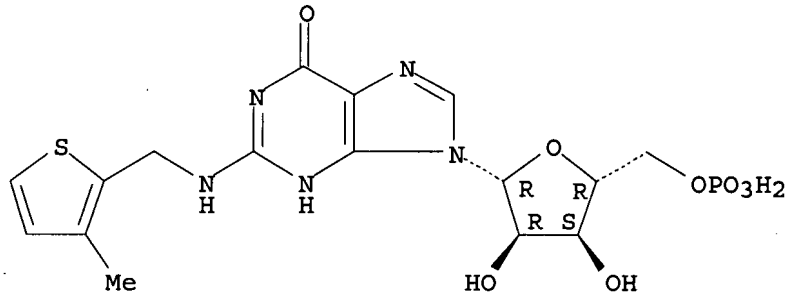
For additional information, please consult the following help
messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> d scan

L3 19 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 5'-Guanylic acid, N-[(3-methyl-2-thienyl)methyl]-, sodium salt (9CI)
MF C16 H20 N5 O8 P S . x Na

Absolute stereochemistry.

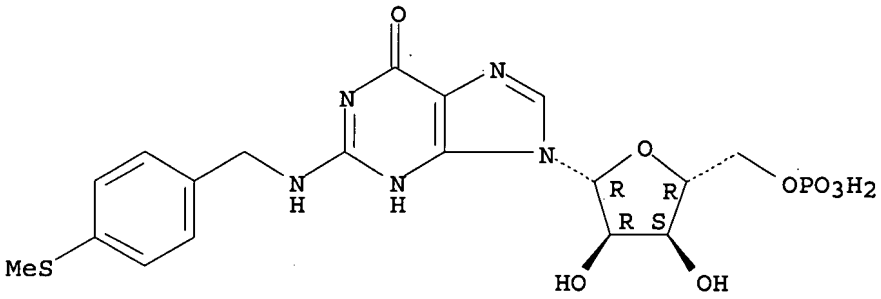


●x Na

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):4

L3 19 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 5'-Guanylic acid, N-[[4-(methylthio)phenyl]methyl]-, sodium salt (9CI)
MF C18 H22 N5 O8 P S . x Na

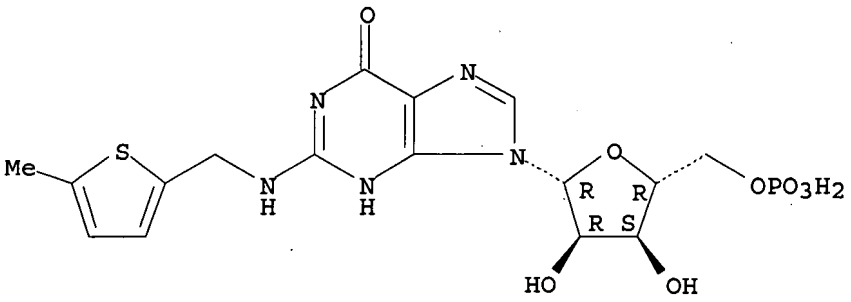
Absolute stereochemistry.



●x Na

L3 19 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 5'-Guanylic acid, N-[(5-methyl-2-thienyl)methyl]- (9CI)
MF C16 H20 N5 O8 P S
CI COM

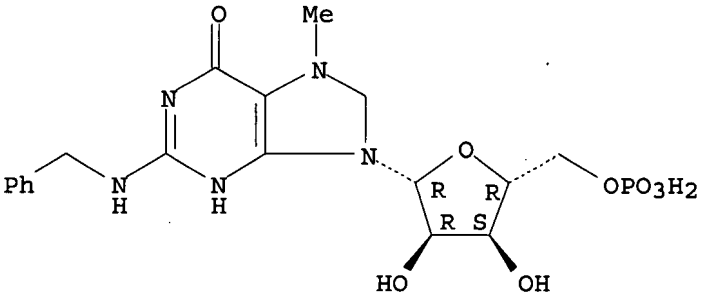
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 19 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 5'-Guanylic acid, 7-methyl-N-(phenylmethyl)- (9CI)
MF C18 H23 N5 O8 P

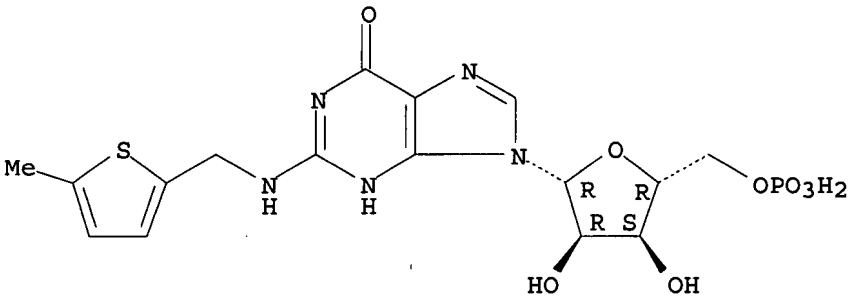
Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L3 19 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 5'-Guanylic acid, N-[(5-methyl-2-thienyl)methyl]-, sodium salt (9CI)
MF C16 H20 N5 O8 P S . x Na

Absolute stereochemistry.



●x Na

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> file caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	173.00	173.21

FILE 'CAPLUS' ENTERED AT 16:53:36 ON 13 MAY 2007
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FILE COVERS 1907 - 13 May 2007 VOL 146 ISS 21
FILE LAST UPDATED: 11 May 2007 (20070511/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> d his

(FILE 'HOME' ENTERED AT 16:51:16 ON 13 MAY 2007)

FILE 'REGISTRY' ENTERED AT 16:51:32 ON 13 MAY 2007
L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
L3 19 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:53:36 ON 13 MAY 2007

=> s l3
L4 2 L3

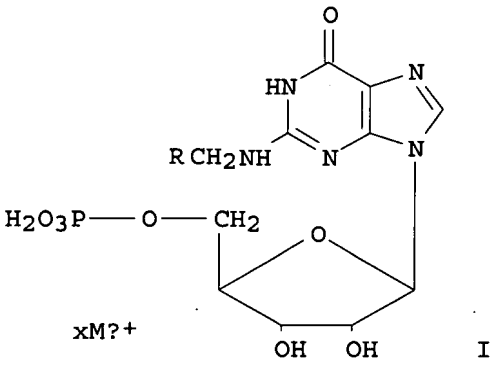
=> d l4 ed ibib abs hitstr 1-2

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 13 May 2004
ACCESSION NUMBER: 2004:390264 CAPLUS
DOCUMENT NUMBER: 140:390630
TITLE: Modified guanosine monophosphates having flavoring activity
INVENTOR(S): Furiosi, Carola; Zoia, Andrea; Gizzoni, Claudio; Colombo, Enrico
PATENT ASSIGNEE(S): Fructamine S.P.A., Italy
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039824	A1	20040513	WO 2003-EP11913	20031027
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003283306	A1	20040525	AU 2003-283306	20031027
EP 1575974	A1	20050921	EP 2003-775235	20031027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005288499	A1	20051229	US 2005-533071	20050818

PRIORITY APPLN. INFO.: IT 2002-MI2306 A 20021030
WO 2003-EP11913 W 20031027

OTHER SOURCE(S): MARPAT 140:390630
GI



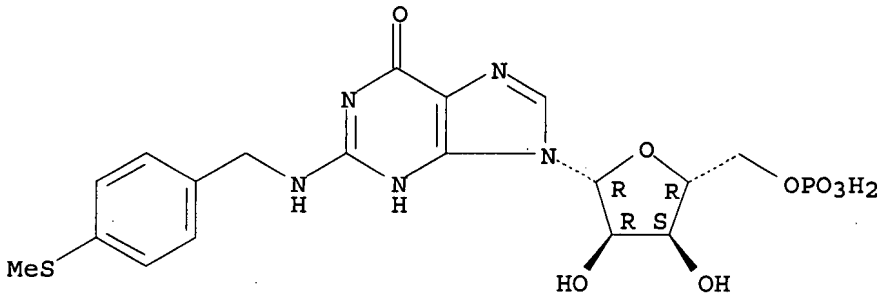
I

AB GMP derivs. of general formula [I, R = C1-C4 alkyl, Ph, benzyl, thiophenyl or benzothiophenyl with optional substitutions; M = H, alkali metal or alkaline earth metal; and x = 1 when n is 2 and 2 when n is 1] are used as flavoring agents or flavor enhancers in alimentary products.
IT 688001-33-4 688001-34-5 688001-35-6

688001-36-7 688001-37-8 688001-38-9
688001-39-0 688001-40-3 688001-41-4
688001-43-6 688001-44-7 688001-45-8
688001-46-9 688001-47-0 688001-48-1
688001-49-2 688001-50-5 688001-51-6
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(modified guanosine monophosphates having flavoring activity)

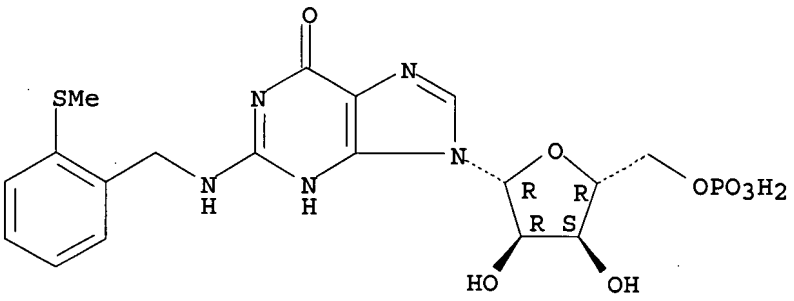
RN 688001-33-4 CAPLUS
CN 5'-Guanylic acid, N-[[4-(methylthio)phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



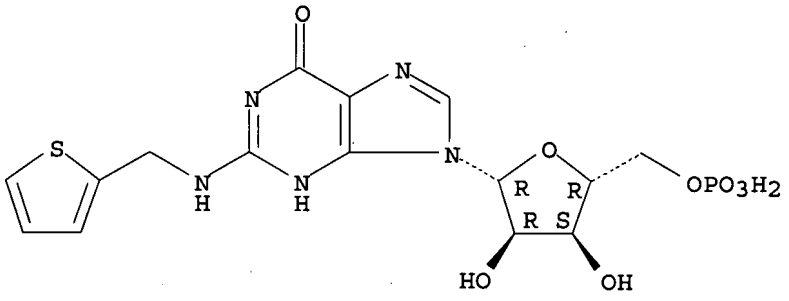
RN 688001-34-5 CAPLUS
CN 5'-Guanylic acid, N-[[2-(methylthio)phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



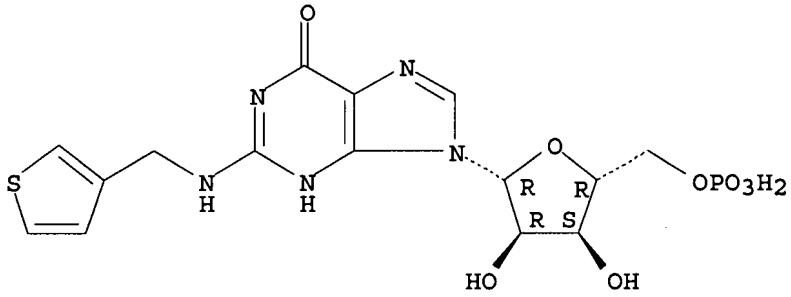
RN 688001-35-6 CAPLUS
CN 5'-Guanylic acid, N-(2-thienylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



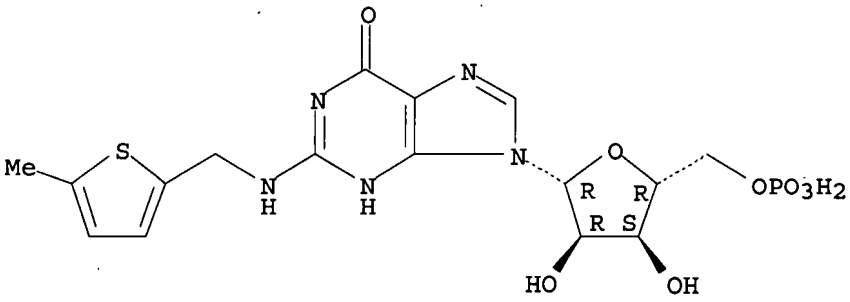
RN 688001-36-7 CAPLUS
CN 5'-Guanylic acid, N-(3-thienylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



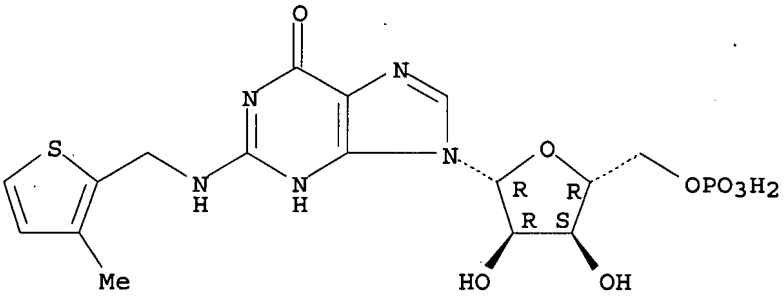
RN 688001-37-8 CAPLUS
CN 5'-Guanylic acid, N-[(5-methyl-2-thienyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



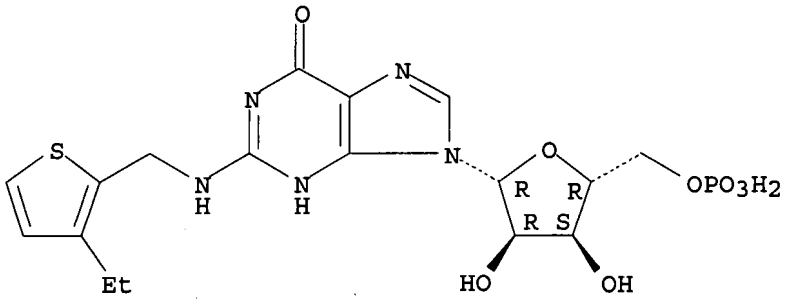
RN 688001-38-9 CAPLUS
CN 5'-Guanylic acid, N-[(3-methyl-2-thienyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



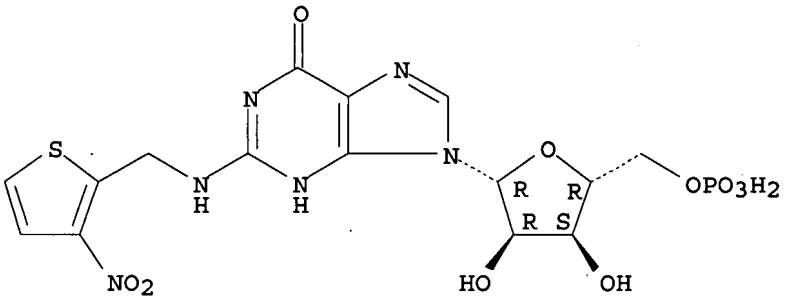
RN 688001-39-0 CAPLUS
CN 5'-Guanylic acid, N-[(3-ethyl-2-thienyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



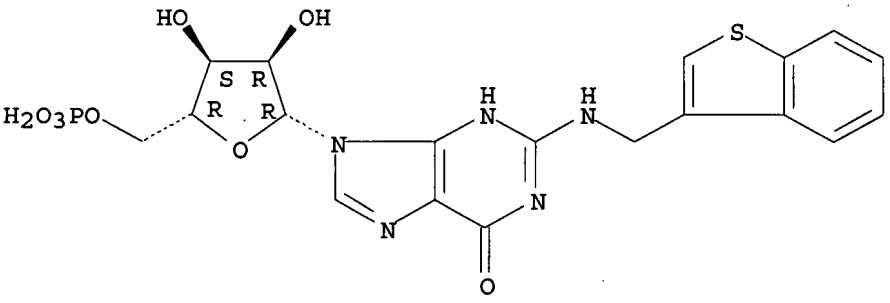
RN 688001-40-3 CAPLUS
CN 5'-Guanylic acid, N-[(3-nitro-2-thienyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



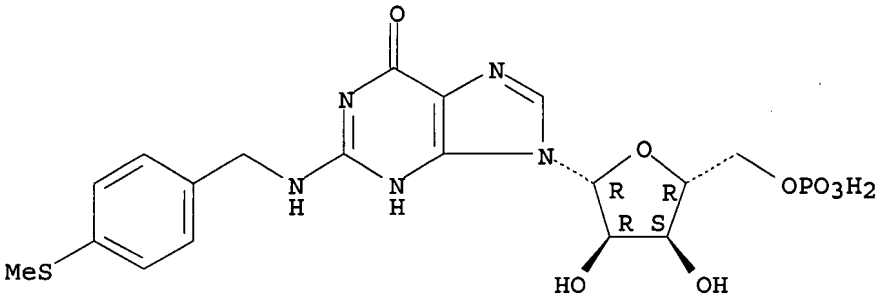
RN 688001-41-4 CAPLUS
CN 5'-Guanylic acid, N-(benzo[b]thien-3-ylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 688001-43-6 CAPLUS
CN 5'-Guanylic acid, N-[[4-(methylthio)phenyl]methyl]-, sodium salt (9CI) (CA INDEX NAME)

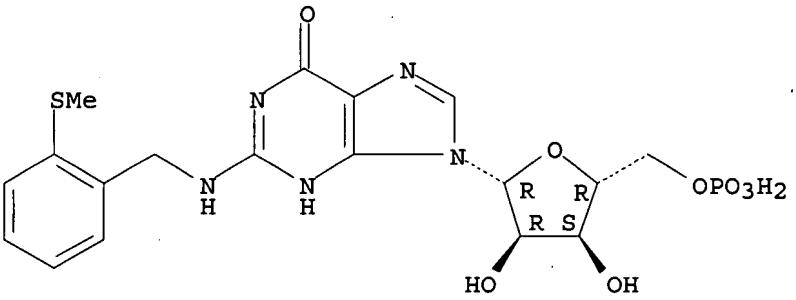
Absolute stereochemistry.



●x Na

RN 688001-44-7 CAPLUS
CN 5'-Guanylic acid, N-[[2-(methylthio)phenyl]methyl]-, sodium salt (9CI) (CA INDEX NAME)

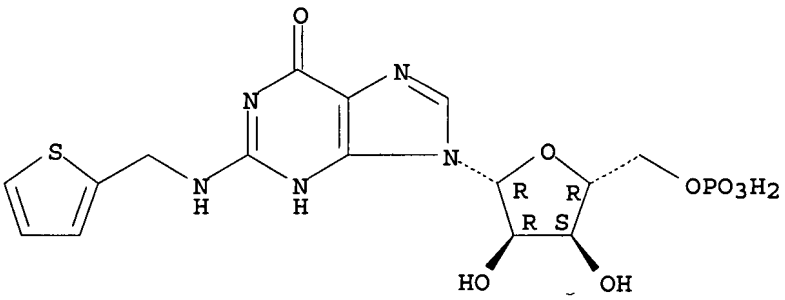
Absolute stereochemistry.



●x Na

RN 688001-45-8 CAPLUS
CN 5'-Guanylic acid, N-(2-thienylmethyl)-, sodium salt (9CI) (CA INDEX NAME)

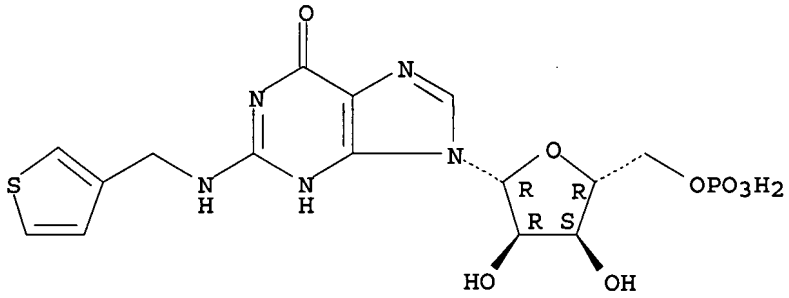
Absolute stereochemistry.



●x Na

RN 688001-46-9 CAPLUS
CN 5'-Guanylic acid, N-(3-thienylmethyl)-, sodium salt (9CI) (CA INDEX NAME)

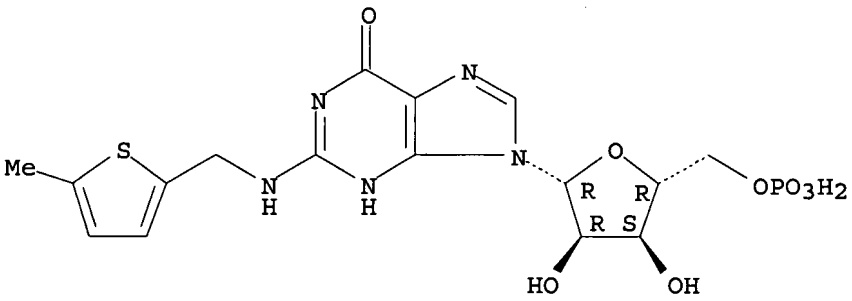
Absolute stereochemistry.



●x Na

RN 688001-47-0 CAPLUS
CN 5'-Guanylic acid, N-[(5-methyl-2-thienyl)methyl]-, sodium salt (9CI) (CA INDEX NAME)

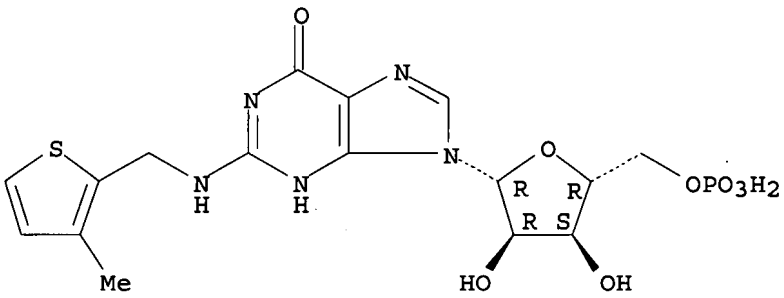
Absolute stereochemistry.



●x Na

RN 688001-48-1 CAPLUS
CN 5'-Guanylic acid, N-[(3-methyl-2-thienyl)methyl]-, sodium salt (9CI) (CA INDEX NAME)

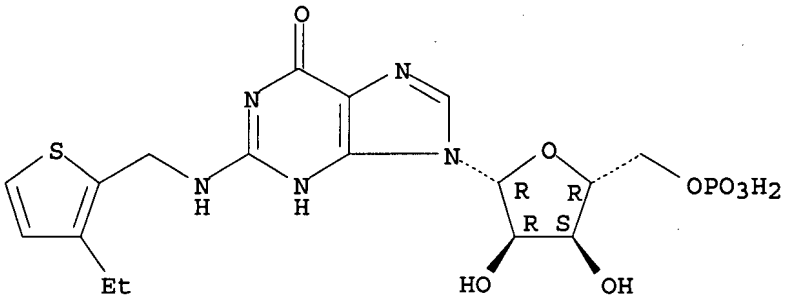
Absolute stereochemistry.



●x Na

RN 688001-49-2 CAPLUS
CN 5'-Guanylic acid, N-[(3-ethyl-2-thienyl)methyl]-, sodium salt (9CI) (CA INDEX NAME)

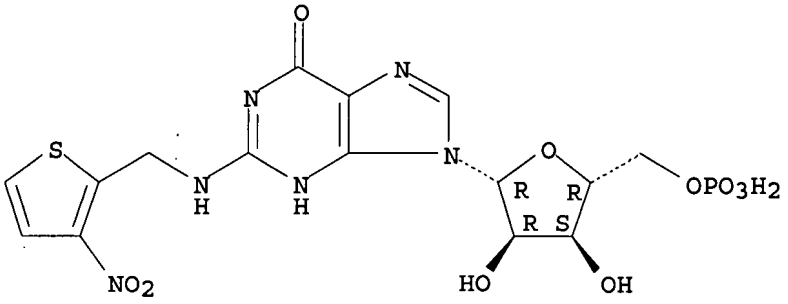
Absolute stereochemistry.



●x Na

RN 688001-50-5 CAPLUS
CN 5'-Guanylic acid, N-[(3-nitro-2-thienyl)methyl]-, sodium salt (9CI) (CA INDEX NAME)

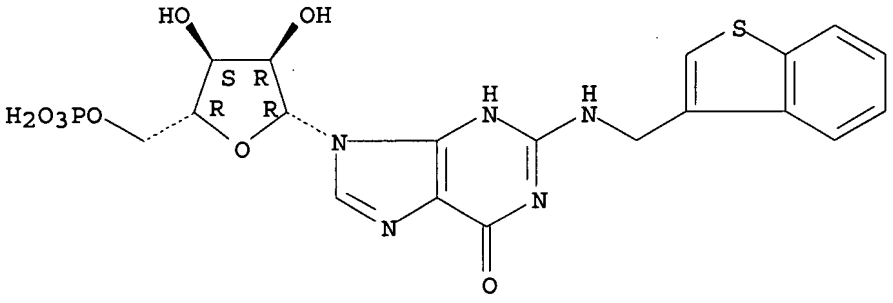
Absolute stereochemistry.



●x Na

RN 688001-51-6 CAPLUS
CN 5'-Guanylic acid, N-(benzo[b]thien-3-ylmethyl)-, sodium salt (9CI) (CA INDEX NAME)

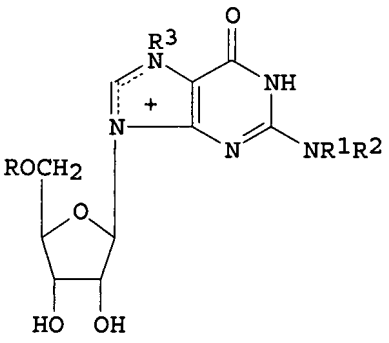
Absolute stereochemistry.



●x Na

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 22 Dec 1990
ACCESSION NUMBER: 1990:631913 CAPLUS
DOCUMENT NUMBER: 113:231913
TITLE: pH-independent depurination of 7-alkylguanosines and their 5'-monophosphates
AUTHOR(S): Lahti, Marjo; Santa, Harri; Darzynkiewicz, Edward; Loennberg, Harri
CORPORATE SOURCE: Dep. Chem., Univ. Turku, Turku, SF-20500, Finland
SOURCE: Acta Chemica Scandinavica (1990), 44(6), 636-8
CODEN: ACHSE7; ISSN: 0904-213X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I, R=H
II, R=OP(O)(O⁻)OH

AB First-order rate constant data for spontaneous depurination of guanosines (I) and their phosphates (II) (R1 = H, Me, Et, or PhCH2, R2 = H or Me, R3 - alkyl, PhCH2, cyclopentyl, phenylalkyl, or alkyl for both I and II) show that depurination rates of the nucleotides are from 20 to 50% of those of their parent nucleosides. Increasing the electronegativity of the 7-substituent considerably destabilizes the N-glycoside bond. Electron-with drawing groups, which accelerate the heterolytic cleavage of the N9-C bond by increasing the pos. charge at the imidazole ring, retard almost as efficiently the pre-equilibrium protonation, leaving the observed rate constant practically unchanged. The effect of N2-substituents on the rate is considerably weaker than that of 7-substituents. N2-substituents do not sterically destabilize the N-glycoside bond of either 7-allylguanosine